



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/640,551	08/13/2003	William J. McGann	IT-12	8366

1218 7590 12/01/2006

CASELLA & HESPOS
274 MADISON AVENUE
NEW YORK, NY 10016

EXAMINER

SIEFKE, SAMUEL P

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/640,551	Applicant(s) MCGANN ET AL.	
	Examiner Samuel P. Siefke	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-14 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/6/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 1-5 and 16-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group I and II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/8/06.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1743

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hering et al. (USPN 5,983,732) in view of Korotkikh et al. (USPN 6,559,094).

Hering teaches an integrated collection and vaporization particle chemistry monitoring device that comprises a test station to for receiving an object to be test (col. 1, lines 9-38), a metal trap (stainless steel) for receiving a flow of air from the testing station (col. 2, lines 52-60, col. 3, lines 6-13), a heater for heating the metal trap sufficiently to volatize material on the trap (col. 5, lines 1-7; col. 2, lines 52-60), an air pump for generating a flow of air across the trap (fig. 1, ref. 4; col. 4, lines 58-65), and a detector for receiving the flow of air across the trap and for testing whether the flow of air across the trap contains any of the particles of interest (fig. 1, ref. 7; col. 2, line 61-col. 3, line 26). The stainless steel trap (36) has a thickness of 0.0254 mm and is held to mounting posts(36) (fig. 3).

Hering does not teach a foamed trap having reticulated open cell structure and being formed from either aluminum alloy, copper foam metal and a specific density of 10-50% of aluminum alloy. Hering further does not specifically teach the metal trap being approximately 2mm.

Korotkikh teaches catalytic materials for selective oxidation that comprises foamed metal catalysts that made of copper, aluminum alloys and combinations and alloys thereof such as steel and stainless steel (col. 11, line 16- col. 12, line15). It is well known in the art that catalysts trap air contaminants and are heated to vaporize the trapped species. Therefore it would have been obvious to one of ordinary skill in the art to modify Hering to employ a foamed metal trap because of the flow through design, which enables particles to be trapped within the foamed metal trap instead of being impacted thereon. The design of Hering would not be altered except with the replacement of the metal impactor strip to the foamed metal trap which collects the chemical particles in the reticulated open cell structure provided. This is a well known and routinely employed feature in chemical traps. Regarding the change of material of the trap, it is well known in the art that the listed metals (copper, aluminum etc.) within Korotkikh are equivalents to stainless steel. Korotkikh specifically teaches a catalyst trap with a thickness of 2mm (col. 12, line 1). Regarding the metal trap having a selected aluminum alloy density ranging between 10-50%, it would have been obvious to one having an ordinary skill in the art to modify the modified Hering through routine experimentation to arrive at an optimal range of 10-50% aluminum alloy in the metal trap. Korotkikh teaches catalyst trap having a 6% density.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hering et al. (USPN 5,983,732) in view of Korotkikh et al. (USPN 6,559,094) and in further view of Jenkins (USPN 5,491,337).

The modified Hering can be seen above.

The modified Hering does not teach an ion trap mobility spectrometer for the detection of the vaporized chemical species.

Jenkins teaches an ion trap mobility spectrometer for detection of vaporized chemical species provided by a carrier gas (abstract). It would have been obvious to one having an ordinary skill in the art at the time of the invention to modify the modified Hering to employ an ion trap mobility spectrometer for detection of the vaporized chemical species because of its well known detection sensitivity and its reliable detection of chemical vapors.

Allowable Subject Matter

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not teach a silica-carbon foamed metal trap.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Art Unit: 1743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sam P. Siefke



November 24, 2006



Jill Warden
Supervisory Patent Examiner
Technology Center 1700